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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,305	07/05/2007	William Jones	ACH-3025 US	4974
56744	7590	07/01/2008		
Albemarle Netherlands B.V. Patent and Trademark Department 451 Florida Street Baton Rouge, LA 70801			EXAMINER QIAN, YUN	
			ART UNIT	PAPER NUMBER
			4162	
			MAIL DATE	DELIVERY MODE
			07/01/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/582,305

Applicant(s)

JONES ET AL.

Examiner

YUN QIAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/9/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/9/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CIS)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 6/9/2006.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12 and 13 provide for the use of catalyst, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 12 and 13 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Euzen et al. (US 5,830,822).

Regarding claims 1 and 4-6, Euzen '822 teaches a process for the preparation of a high temperature resistant catalyst, comprising a trivalent aluminium compound as instantly claimed 1 and 5, a divalent metal selected from Mn, Co, Mg, Ba, Fe as instantly claimed 1 and 4, and a rare earth metal Lanthanum salt as instantly claimed 1 and 6 (col.3, lines 26-36, and claims 12 and 13). The wet catalyst is dried and calcined

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as the instant claimed 1(c-e) (col.9, lines 5-8). The catalyst has a formula of $A_1 \cdot xB_yC_zAl_{12-y-z}O_{19-5}$ wherein A represents rare earth metal, x has values of 0 to 0.25.

$x B_y C_z A l_{12-y-z} O_{19-5}$ wherein A represents rare earth metal, x has values of 0 to 0.25.

By forming a catalyst of formula of $A_{1-x}B_yC_zAl_{12-y-z}O_{19-5}$ wherein A represents rare earth metal, x has values of 0 to 0.25, the catalyst obviously has more than 18 wt% of rare earth metal compound, as claimed.

Regarding claim 2, Euzen '822 teaches using a sodium-free base such as the ammonia or potassium hydroxide to precipitate the hydroxides (col.7, line 34 and col.9, line 1).

Regarding claim 3, Euzen '822 teaches an addition of the homogenized metal salts solution simultaneously with ammonia to precipitate the hydroxide at pH of 9 as the instantly claimed (col.7, lines 1-45). Although Euzen does not specifically indicate any anionic clay being formed, one of ordinary skill in the art would expect to have the same results as the instant claim 3, no anionic clay being formed.

Regarding claims 7-8, Euzen '822 performs the same process as instant claim for preparation of the catalyst and that has formula $A_{1-x}B_yC_zAl_{12-y-z}O_{19-5}$ wherein A represents rare earth metal, x has values of 0 to 0.25 (col.2 lines 61-67 and col.3, lines 1-20). One of ordinary skill in the art would expect the composition obtained from Euzen's process would overlap and/or encompass the instant claims.

Regarding claims 9-10, Euzen '822 performs the same process as instant claim for preparation of the catalyst, in the absence of sodium. As shown in the figure 1 (sheet 1), the catalyst has a good crystallinity as instant claims.

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Euzen as applied to claim 8, and further in view of Kim et al. (US 5,603,823).

Regarding claim 11-13, Kim discloses catalytic cracking catalysts comprising MgO, Al_2O_3 and La_2O_3 components as Euzen's. The composition of the catalyst may be combined with any known fillers to form particles suitable for use in an FCC process as instant claims (col.2, lines 54-67).

It would have been obvious to one ordinary skill in the art at the time of the invention to have combined the catalyst of Euzen with a filler and molecular sieve to make a catalyst composition for use in FCC process, as taught by Kim et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUN QIAN whose telephone number is (571)270-5834. The examiner can normally be reached on Monday-Thursday, 10:00am -4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YQ

June 20, 2008

/Melvin C. Mayes/

Primary Examiner, Art Unit 1791